REMARKS

By this amendment, no claims have been amended, cancelled, or added. Thus, Claims 1-7 are pending in the application.

I. SUMMARY OF THE REJECTIONS

Claims 1-7 are rejected under 35 U.S.C. § 103(a) as allegedly being anticipated by U.S. Patent Number 5,606,693 issued to Nilsen et al. (*"Nilsen"*) in view of U.S. Patent Number 6,240,416 issued to Immon et al. (*"Immon"*).

This rejection is respectfully traversed.

II. RESPONSE TO REJECTIONS

Pending Claims 1-7 over patentable over the prior art because one or more express elements featured in each claims are not disclosed, taught, or suggested, either individually or in combination, by *Nilsen* and *Immon*, e.g., as explained in detail below, neither *Nilsen* nor *Immon* show "configuration information that dictates a manner of operation for one or more of said plurality of devices within said network" as featured in each of pending Claims 1-7.

Discussion of Cited Art References

Nilsen is directed towards logging large volumes of data to a plurality of database servers. **Each database server reports status and availability to the configuration controller** that can then adjust future logging requests. The network operator can change the configuration stored in the configuration controller whenever reconfiguration is necessary such as by the addition of new database servers. **A data logging modification is then communicated to each currently active requestor workstation** by the configuration controller (Abstract, emphasis added).

In *Nilsen*, the information maintained by the configuration controller about the status and availability of each database server **does not** dictate a manner of operation for one or more of a plurality of devices within a network. At best, the configuration controller may use the information to determine whether to add a new database server, but simply manipulating the information maintained by the configuration controller about the status and availability of each

database server **does not** change the manner of operation for one or more of a plurality of devices within a network.. In other words, *Nilsen's* configuration information reflects changes to the status of devices, but cannot be sued to cause changes to the status or operation of devices. In the approach of *Nilsen*, there is no information stored at the configuration controller that dictates the manner of operation of any one of the database servers in the network of *Nilsen*. For example, data maintained by the configuration controller may be modified to reflect the addition of a database server to the system of *Nilsen*, but data maintained by the configuration controller **cannot** be modified to dictate a manner of operation of a particular database server.

Immon describes a system and method for creating and managing metadata for a distributed computing environment while maintaining the integrity of the metadata (Abstract). *Immon* states that the "present invention relates to... the type of topology ...where metadata is gathered at any participating site – distributed or centralized, managed there under a system of record, and the system of record is maintained across all servers participating in the network" (Col. 6, lines 32-36).

The use of metadata in *Immon* **does not** extend to configuring the operation of devices. *Immon* states at Col. 9, lines 56-58 that "in a word, the existence and operation of distributed metadata is <u>independent</u> of hardware platform, DBMS, or operating system." *Immon* further states, "the platforms and the DBMS found on the platform <u>do not make any difference to the operation and the utility</u> of the support of distributed metadata" (Col. 11, lines 25-28). Thus, while the use of metadata reflecting application data in *Immon* is described, e.g., Fig. 1 teaches metadata describing screen/reports, data specifications, business documentation, structural layouts, and system measurements, there is no description in *Immon* of using metadata that reflects configuration information about a system or a plurality of devices in the system that dictates a manner of operation for a device.

In fact, *Immon* **does not** suggest the concept of configuring a system or device using metadata. While *Immon* describes synchronizing a device using metadata, merely verifying that the metadata residing in the system of record is the most current version does not involve the act of configuration. To illustrate the point of how synchronization and configuration are distinct and separate, consider a simple example using a personal digital assistance ("PDA"). The PDA may be synchronized (e.g., by refreshing appointment data and metadata for a calendar

application by connecting to a network) without the PDA being configured (e.g., no configuration settings on the PDA are changed). Likewise, the PDA may be configured (e.g., the operation of the PDA may customized by a user) without being synchronized (e.g., the PDA is not connected to a network and no metadata is checked to see if it is the most recent version). Thus, the act of one does not necessarily involve or imply the act of the other. In other words, simply updating a set of metadata with a most recent version does not, in and of itself, involve configuring the device in which the metadata resides.

Claim 1 is Patentable over the Combination of *Nilsen* and *Immon*

Claims 1 features the elements of:

> "gathering and storing in a centralized repository metadata that reflects configuration information about said system, and about each device of said plurality of devices, wherein said configuration information dictates a manner of operation for one or more of said plurality of devices within said network;
> modifying metadata within said centralized repository to initiate configuration changes within said network; and
> modifying the operation of one or more of said plurality of devices within said network by propagating said configuration changes from said centralized repository to the devices on said network to cause said configuration changes to take place"

These elements are not disclosed, taught, or suggested by *Nilsen* or *Immon,* either individually or in combination.

Nilsen is relied on by the Office Action to show most of the elements of Claim 1, but the Office Action does acknowledge that "*Nilsen* does not explicitly teach a centralized repository metadata as claimed." *Immon* (Col. 3, lines 10-14) is relied upon by the Office Action to show a "centralized repository metadata." However, the metadata of *Immon* does not extend to configuring the operation of devices, as explained above. Since the metadata of *Immon* does not "dictate a manner of operation for one or more of said plurality of devices within said network" as featured in Claim 1, even if *Immon* were to teach gathering and storing metadata, the approach of *Immon* would not disclose, teach, or suggest "gathering and storing in a centralized repository metadata" as claimed in Claim 1. Consequently, *Immon* cannot be used to show any element of Claim 1, since *Immon* does not disclose, teach, or suggest the use of metadata as claimed.

Nilsen also lacks any suggestion that the data stored in the configuration controller functions as configuration information that **dictates a manner of operation for one or more of a plurality of devices within the network,** as required by Claim 1. In fact, the data stored at the configuration controller of *Nilsen* does not "dictate the manner of operation" of anything. Rather, the data stored at the configuration controller is merely a collection of data that the database servers have reported to the configuration controller about their status. Thus, while status information flows from the database servers to the configuration controller, the configuration controller does not control anything based on that information. For example, the specification of *Nilsen* makes clear that the configuration data contained within the central configuration controller 132 and 134 merely describes "how many database servers are available and how they are to be accessed" (Col 3, lines 50-52). The configuration controller is thus a mechanism for database servers to communicate to other devices information about how they are working, not a mechanism to communicate to the database servers how they are to work. To change the manner of operation of a particular database server according to the approach of *Nilsen*, one would need to change data stored at that particular database server, rather than modifying data maintained by the configuration controller.

Consequently, it is respectfully submitted that neither *Nilsen* or *Immon* disclose, teach, or suggest the element of "gathering and storing in a centralized repository metadata that reflects configuration information about said system, and about each device of said plurality of devices, wherein said configuration information dictates a manner of operation for one or more of said plurality of devices within said network."

The portion of *Nilsen* cited to show the express element beginning with "modifying the operation" quoted above (Col. 4, lines 2-4) merely states, *in toto*, "As logging proceeds in the database servers, status messages 210 are transmitted over the network 130 from each server to the central configurator 132. An end of data logging message 212 is also transmitted to the controller 132." This portion of *Nilsen* merely states that status messages are transmitted from each database server to a central configurator. The status messages do not serve to dictate a manner of operation of the database servers. Further, to the extent that the central configurator communicates information to any other entity, the central configurator merely communicates a message regarding the data logging modification to each currently active requestor workstation.

For example, if a database server went off line, the workstations would be notified so data may be logged in a database server that is operational. The significance of this point is that in the approach of *Nilsen*, data flows from the database servers to the central configurator, and then from the central configurator to the requestor workstations; data does not flow from the central configurator to the database servers.

Accordingly, *Nilsen* does not disclose, teach, or suggest the express element of "modifying the operation of one or more of said plurality of devices within said network by propagating said configuration changes from said centralized repository to the devices on said network to cause said configuration changes to take place" because (a) *Nilsen* does not teach modifying the operation of any devices, (b) *Nilsen* does not teach propagating configuration changes from a centralized repository to one or more devices on the network, let alone teaching "propagating said configuration changes from a centralized repository to the device on the network to cause said configuration changes to take place" as required by Claim 1.

Accordingly, as one or more express elements of Claim 1 are absent from *Nilsen* and *Immon*, either individually or in combination, it is respectfully submitted the Claim 1 is patentable over the cited art.

Nilsen and *Immon* are not properly combined to sustain a rejection under 35 U.S.C. § 103(a)

A rejection of Claim 1 under 35 U.S.C. § 103(a) based upon a combination of *Nilsen* and *Immon* is improper and may not be sustained because there is no motivation for combination. The Office Action, in an attempt to cite a teaching, suggestion, or motivation for combination, states "it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to combine the teaching of *Immon* with the teaching of *Nilsen* to maintain the integrity and synchronicity of metadata in a distributed computing environment, and particularly in data warehouses, wherein servers can gain access to metadata stored in different sites within the network (Col. 2, lines 57-61 of *Immon*)."

However, nothing in the cited portion of *Immon* suggests that the approach of *Immon* could be augmented by a combination with *Nilsen*, or vice-versa. For example, the database servers of *Nilsen* each inform a single entity, the central configurator, of their data logging status

so that queries for particular data can be directed to the particular server holding the data. It is unclear how the approach of *Immon* could be used in conjunction with reporting the data logging status of database servers to a single entity. Absent a showing of a teaching or suggestion to combine the teachings, a rejection under 35 U.S.C. § 103(a) is inappropriate hindsight-based analysis. MPEP § 2143.01.

Accordingly, it is respectfully submitted that any rejection of Claim 1 under 35 U.S.C. § 103(a) based upon a combination of *Nilsen* and *Immon* is inappropriate because there is no motivation to combine *Nilsen* and *Immon*. Therefore, for at least the above reasons, the rejection of Claim 1 may not be sustained and Claim 1 is in condition for allowance.

Claims 2-7 are Patentable over the combination of *Nilsen* and *Immon*

Claims 2-7 are dependent claims, each of which depends (directly or indirectly) on Claim 1. Each of Claims 2-7 is therefore allowable for the reasons given above with respect to Claims 1. In addition, each of Claims 2-7 introduce one or more additional limitations that independently render it patentable.

For example, in Claim 2, *Nilsen* does not disclose, teach, or suggest the element of "in response to a failure of the system, recovering the centralized repository from a backup, using the metadata within the centralized repository to configure the system, and after the system is configured, recovering the system." The portion of *Nilsen* cited to show this element (Col. 3, lines 32-38) lacks the notion of recovering the centralized repository from a backup. The Office Action acknowledges that "*Nilsen* does not explicitly teach a centralized repository metadata as claimed." Further, while configuration 134 may store data in a redundant manner compared to configuration 132, there is no suggestion or discussion in *Nilsen* of recovering configuration 132 from a backup in response to a failure of the system. Accordingly, *Nilsen* does not disclose, teach, or suggest this element of Claim 2.

In Claim 3, *Nilsen* does not disclose, teach, or suggest the element of "wherein the step of gathering and storing in a centralized repository includes gathering and storing metadata in a centralized repository that resides outside said system." The Office Action has already acknowledged that "*Nilsen* does not explicitly teach a centralized repository as claimed," but yet relies on *Nilsen* to show the above quoted element of Claim 3 featuring the use of a centralized

repository. Thus, the position of the Office Action cannot be supported. Accordingly, *Nilsen* does not disclose, teach, or suggest this element of Claim 3.

Regarding Claim 4, the Office Action does not provide any additional reasons why the additional limitations featured in Claim 4 are shown by *Nilsen*; however, the Office Action acknowledges that "*Nilsen* does not explicitly teach a centralized repository metadata as claimed." Thus, *Nilsen* cannot possibly show the additional elements featured in Claim 4, which feature a centralized repository.

Claim 5 features the additional element of:

"replicating said system by performing the steps of,
> copying said metadata to a second centralized repository associated with a second system, and
> configuring said second system based on the metadata contained in said second centralized repository."

The Office Action rejects the above element for the same reasons associated with Claim 1, even though the above element of Claim 5 is not present in Claim 1. The Office Action states that *Nilsen* discloses a redundant alternative configuration 134 (Col 3, lines 34-36), however the Office Action does not make clear what significance that has. For example, the Office Action earlier characterized configuration 134 as being part of the system, but now appears to characterize configuration 134 as being part of the replicated second system in rejecting Claims 5 and 12. It is respectfully submitted that this is an inconsistent position, because in rejecting Claim 4, configuration 134 was characterized as being a backup/redundant component for configuration 132, where configuration 132 and 134 were part of the same system, while in rejecting Claim 5, configuration 134 is now characterized as part of a second system that was replicated.

It is respectfully noted that no portion of *Nilsen* suggests that a separate system may be replicated. While *Nilsen* describes using one controller 132 as the primary controller upon failure of the other (Col. 3, 35-38), using one controller in lieu of another is not replicating a system.

Further, no portion of *Nilsen* suggests "copying said metadata to a second centralized repository associated with a second system, and configuring said second system based on the metadata contained in said second centralized repository." This is so because *Nilsen* does not use metadata as claimed, does not copy metadata to a second centralized repository associated with a

second system, and does not configure the second system based on the metadata contained in the second centralized repository.

Moreover, it is respectfully submitted that the Office Action has already acknowledged that "*Nilsen* does not explicitly teach a centralized repository metadata as claimed." Thus, the Office Action is in contradiction with itself, as now the Office Action asserts *Nilsen* teaches the above quoted element of Claim 5 that features a centralized repository. Consequently, it is respectfully submitted that *Nilsen* does not disclose, teach, or suggest this element of Claim 5.

Claim 6 features the additional element of:

> "managing configuration of at least two of an application layer, an operating systems layer, and a hardware layer of said system based upon the metadata within said centralized repository."

This element is not disclosed, taught, or suggested by *Nilsen*.

Nilsen does not disclose, teach, or suggest "managing configuration of at least two of an application layer, an operating systems layer, and a hardware layer of said system based upon the metadata within said centralized repository" as required by Claim 6. The Office Action asserts that this element is shown by *Nilsen* because *Nilsen* implicitly discloses two layers by teaching a historical analysis of data (Col. 3, lines 13-15) and the load on each of the database servers (Col. 3, line 62). Assuming, *arguendo*, that this is true, this in no way suggests managing the configuration of these layers based upon metadata within a centralized repository. To the extent that the controllers in the approach of *Nilsen* manage anything, the controllers "provides database server access information to each requesting workstation" (Abstract). Providing information to workstations about the availability and methods of access of database servers does in no way suggests the management of a configuration of either an application layer, an operating systems layer, or a hardware layer because those layers cannot be configured merely communicating to a third party information about their availability and methods of access. It is respectfully submitted that *Nilsen* does not disclose, teach, or suggest this element of Claim 6.

Therefore, for at least the above reasons, the rejection of Claims 2-7 may not be sustained and Claims 2-7 are in condition for allowance.

III. CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any fee shortages or credit any overages Deposit Account No. 50-1302.

Respectfully submitted,

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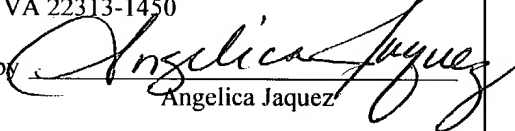
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on August 17, 2004 by

Angelica Jaquez